NATIONAL DEFENSE UNIVERSITY

NATIONAL WAR COLLEGE

An Uncertain Deterrence : Bernard Brodie, Indian Nuclear Strategy, and the Problems of Stability

Core Course II Essay

Warren M. Stern / Class of 1997
Course 5602
Seminar D
Seminar Leader: Col David Tretler
Faculty Advisor: Dr. Al Pierce

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
1997		**00-00-1997 to 00-00-1997**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
An Uncertain Deterrence: Bernard Brodie, Indian Nuclear Strategy, and the Problems of Stability	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **National War College,300 5th Avenue,Fort Lesley J. McNair,Washington,DC,20319-6000**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT
see report

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**		**14**	

> ***Many among those who are charged with defense planning, and who would otherwise enlighten the public or at least our political leaders concerning the dangers facing us, themselves unconsciously reject the concept of deterrence based on retaliation[1].***

The above statement was excerpted from Bernard Brodie's 1959 study Strategy in the Missile Age. As originally drafted, it was meant to describe US policy-makers in the early years of the US and Soviet nuclear competition. The phenomenon reflected in this statement is currently manifested in India's nuclear strategy

The dawn of the nuclear weapons age in 1945 gave birth to not only a new form of more powerful explosive, but also to a new focus in military strategies. In particular, it gave new emphasis and meaning to the age-old concept of deterrence. In the US, among the most influential early thinkers on the strategic and political significance of nuclear weapons and deterrence was Bernard Brodie.

Fifty years after the first nuclear explosion, nuclear weapons programs have taken on strategic and political significance on the Asian sub-continent. This paper analyzes Indian nuclear strategy in the context of Brodie's theories on nuclear strategy It focusing on three critical areas. First, we look at the importance of the Indian concept of recessed deterrence and its absence in Brodie's writings. Then, we discuss the Indian object of deterrence. Finally, we analyze India's retaliatory capability in the context of Brodie's recommendations for effective deterrence. In analyzing these areas it becomes clear that India's nuclear strategy does not fully accord with Brodie's strategic recommendation for stability in the nuclear age. As presaged in the opening quote, this, may be due to a deeper rejection of the concept of nuclear retaliation.

The Significance of Recessed Deterrence

In pursuing an analysis of India's nuclear strategy it is to important to recognize that India has not yet given a comprehensive official statement on its nuclear strategy. Indeed, nuclear ambiguity is its public policy. Nevertheless, it is well known that India has nuclear weapons development at the heart of their secretive nuclear program. Former officials and even some current officials essentially acknowledge a nuclear capability and have made their views on the nuclear program publicly known. Indeed, India tested a nuclear explosive device over twenty years ago, though it claimed that this device was for peaceful purposes

The issue of official public acknowledgment of nuclear capabilities plays a central if not dominant role in the nuclear strategy debate on the sub-continent. The issue as currently phrased is whether India should move from a status of "recessed deterrence" to one of open deterrence. The question that is asked is whether India can deter its adversaries when prevented from making the full extent of its capabilities and preparedness known." Implicit in this debate is that there is a tension between the two; that deterrence requires making a greater degree of ones program known to the adversary.

The issue of recessed versus open deterrence is not specifically addressed by in Strategy in the Missile Age, in part because Brodie was writing in the context of an open US-Soviet competition, but also because public detailing of nuclear capabilities is not an issue in his theories on deterrence. Deterrence requires only a credible threat of retaliation, both capability and will. Public pronouncements are not required, so long as India's capabilities are generally known by its adversaries. This condition is satisfied. As previously mentioned, India has all but openly acknowledged a nuclear weapons capability. For example, in 1990, the

former Indian Chief of Army Staff publicly stated "I am telling you in straightforward terms: an Indian planner should assume that Pakistan has a certain nuclear-weapons capability, and similarly any prudent Pakistani military planner ought to assume that India has got a certain nuclear-weapons capability also." Indeed, India's adversaries (China and Pakistan) do not appear to doubt Indian nuclear capacity.

Supporters of open Indian deployments do at times refer to issues that fall within the scope of Brodie's strategic considerations, but the link is tenuous. For example, supporters of open Indian deployment argue that openness would lead to a greater recognition of Indian capabilities and resolve. Indeed Brodie does discuss the possibility of deterrence failing through miscalculation of capabilities or intentions. However, as previously mentioned, there is little doubt about Indian capabilities and one needs to question whether further Indian assertions of its capabilities would be credible. Others argue that openness by India would increase the effectiveness of the command and control structure. Brodie also emphasizes the importance of command and control in the nuclear age. However, even if India's nuclear program were openly acknowledged, command and control issues would almost certainly remain highly secretive. Finally, some argue that open acknowledgment of nuclear weapons would allow India to specify the conditions under which nuclear weapons would (and thus would not) be used and thus aid deterrence. However, one needs to ask how credible public pronouncement would be. Brodie would also argue against this because "it would be tactically and factually wrong to assure the enemy in advance.... that we would in no case move against him until we had already felt some bombs on our cities and airfields." This is because it is impossible to predict with absolute assurance behavior under provocative circumstances.

Brodie addresses a separate issue that is relevant to the recessed/open deterrent debate. This is the fact that, public pronouncements, to the extent that they lead to "saber rattling" could actually weaken deterrence. According to Brodie, "conspicuous aggressiveness in handling of armaments does not always pacify the opponents." While the object of deterrence is to make the enemy so frightened that he will not attack, it is possible to make him too frightened. "The effective operation of deterrence over the long term requires that the other party be willing to live with our possession of the capability upon which it rests."[iii] If Pakistan or China so feared that India were irrational or belligerent, pre-emptive attack would be important. To the extent that public acknowledgment led to this, it would tend to undermine the deterrent.

Thus, key portions of the strategic nuclear debate in India appear to focus on an issue that is not central to the strategy of deterrence. While there is little in Brodie's writings to favor the maintenance of ambiguity, there is also little to favor openness. The issue of open versus recessed deterrence has more to do with the political imperatives of the international non-proliferation regime on the one hand and India's desire to emphasize its national technical prowess on the other. In large part, this is politics, not military strategy.

Objects of Deterrent

Nuclear weapons bring with them an immense destructive capability. But this destructive capability in itself is not automatically a useful tool of policy. Deriving utility from these weapons is not a simple matter. As Brodie wrote in 1959, fifteen years after the US first tested nuclear weapons, "the problem of linking this power to a reasonable conception of its utility has thus far proved a considerable strain."[iv] So, we must determine how India has

attempted to link their nuclear weapons to a policy objective. That is, what do the Indian's hope to accomplish with their nuclear capabilities?

For Brodie, the central objective of nuclear weapons in the US-Soviet context was to create a circumstance that deters Soviet attack on the US, its forces or allies, and thus makes their use extremely unlikely. That is, deterrence of circumstances that would lead to nuclear weapons use. His view sprang from the immense destructive capability of modern nuclear weapons and "the conviction that total nuclear war is to be avoided at almost any cost."[v] For India, the strategic objective is not nearly as clear

New Delhi's initial impetus for the acquisition of nuclear weapons was China's first nuclear test in 1964 following a humiliating defeat in a border war with China in 1962[vi]. With regard to China, Indian nuclear supporters argue that nuclear weapons are needed to ensure that China does not engage in "nuclear blackmail."[vii] Indian literature on the circumstances under which this blackmail would take place is lacking. The vagueness of the rationale regarding China suggests that the India has not fully formulated a strategy vis-à-vis China. The open discussion seems to be largely limited to: "they have one so we need one." As the head of India's principal opposition party which has been a primary proponent of nuclear weapons stated: "I think we have no option in this regard, Pakistan having become nuclear, China having been nuclear for many years now, India simply in order to have its dealings with these two neighbors on a level ground, must be nuclear".[viii] One can observe that China has a superior conventional capability than India, and nuclear weapons could, in theory, provide a deterrent to Chinese conventional aggression, but as we will see in the next section, China

likely has a first strike capability against India, which would tend to minimize an Indian deterrent.

The apparent lack of a developed and focused strategy vis-à-vis China may reflect the fact that, while China was the catalyst to India's nuclear program, the Pakistani threat currently appears to be of greater concern to Indian officials. In particular, India is concerned by Pakistani nuclear capabilities and the festering Kashmir conflict which resulted in war in 1948 and in 1965.[ix] In particular, India wants to ensure that Pakistan does not assist rebels in Indian held Kashmir.[x]

Some observers note that since 1990, Pakistan has exercised restraint on the Kashmir issue and attribute this to the two side's nuclear capabilities.[xi] They argue that Pakistan cannot overtly intervene in support of Kashmiri militants as it did in 1948 and 1965 because of India's nuclear capabilities. But, it is unclear whether this restraint can be attributed to nuclear deterrence. As Brodie points out, using nuclear weapons to deter limited conventional conflict is a difficult task. So long as India lacks the clear capability and will to destroy Pakistan's nuclear capacity in a pre-emptive strike, an explicit Indian attempt to deter limited aggression in Kashmire may not be credible. After all, in the absence of an Indian ability to destroy Pakistan's nuclear retaliatory capability in a first-strike, a threat, implicit or explicit, to use nuclear weapons against a limited incursion in Kashmire, assumes Indian willingness to escalate to a situation that will likely result in the destruction of Indian cities. Indeed, Brodie would urge India to consider abjuring from nuclear escalation in such circumstance for just this reason: "Among the compromises with our presumed convenience which we have to be prepared to consider is the possible abjuration of nuclear weapons in limited war."[xii] Thus,

Pakistani restraint may be the result of India's conventional superiority more than its nuclear capability

In fact, some Indian officials undermine the nuclear weapon deterrent with assertions that nuclear weapons will not be used in response to non-nuclear incursions. For example, in his May 1990 parliamentary address, the Indian Minister of State for Defense reportedly stated "for India to initiate a nuclear attack on the subcontinent would be a betrayal of the human spirit."[xiii] As mentioned in the previous section, Brodie would also argue against specifying when nuclear weapons would be employed as it is not possible to know how India might react under severe circumstances.

Nevertheless, the existence of nuclear weapons may provide a general deterrent to Pakistan against engaging in activities that could escalate to general conventional warfare because general conventional war could in turn ultimately escalate to a nuclear conflict. According to Brodie, "in view of the danger that limited war can convert to total war, especially under the great incentive to strike first circumstances, we have to accept the idea that the methods of limiting the use of force cannot be dictated..." But all this points to the fact that in the case of Pakistani intervention in Kashmir, it would be India that would be faced with a decision of whether to escalate and ultimately risk nuclear conflict. To paraphrase one recent observer, nuclear weapons may make the Kashmir conflict safe for sub-conventional or even low-level conventional conflict.

Indeed, some important figures in India question whether India could launch nuclear weapons against Pakistani cities in any case. While there are obvious moral reasons for opposing the massive destruction of human life, Indian questioning of its willingness to unitize

its nuclear weapons tends to weaken deterrence. According to Brodie, "for the sake of deterrence before hostilities, the enemy must expect us to be vindictive and irrational if he attacks us. We must give him every reason to feel that that portion of our retaliatory force which survives his attack will surely be directed against his major centers of population."[xiv] There is a very strong sentiment in India against nuclear use against cities. In a recent well controlled poll of Indian elite's, of the group that considered themselves advocates of Indian nuclear weapons felt that no circumstances could justify the actual use of nuclear weapons.[xv]

Thus, while India certainly has adversaries, it is unclear whether India has yet found a nuclear strategy appropriate to its situation and motivations

Deterrence and the Ability to Retaliate

If deterrence were the objective of India's nuclear weapons, ensuring that it could retaliate in case of an attack would be a focus of India's nuclear strategy. This is the essential requirement for a stable deterrent: a credible threat of retaliation. As Brodie makes clear, "what counts in basic deterrence is not so much the size and efficiency of one's striking force before it is hit as the size and condition to which the enemy thinks he can reduce it by surprise attack--as well as the his confidence in the correctness of his predictions." [xvi] Here, India's capabilities are uncertain.

Brodie urges that for the proper operation of nuclear deterrence, a country must choose a retaliatory force that appears to have a good chance of penetrating a fully-alerted enemy defenses even if launched in relatively small numbers. Airplanes do not satisfy this requirement, and thus the deployment of a mix of both airplanes (which can be recalled) and

hardened missiles are required. Brodie further points out that in order to ensure a significant retaliation force, a very large initial force may be required.

India is indeed attempting to develop missiles and has enough plutonium for about 20 to 50 nuclear weapons[xvii]. Earlier this year, India tested its Prithvi missile, with a range of about 150 miles, which places it within striking distance of most Pakistani cities.[xviii] Moreover, India is working on a longer range (2500 kilometer) Agni missile. It also currently has several aircraft capable of delivering the nuclear weapons against both Pakistan and China.

Presumably, to the extent that India believes it has an effective deterrent, it is currently relying on dispersion (for China and Pakistan) and distance (for Pakistan) to ensure the ability to retaliate. According to Brodie, however, "dispersion in itself is not a substitute for hardening, neither, certainly is the accumulation of more unprotected aircraft and missiles."[xix] However, neither Pakistan's F-16 A/B's nor the M-11 missiles that the US has accused China of transferring to Pakistan have sufficient range to reach all of India. Thus, distance may currently provide India's nuclear weapons protection of from Pakistan's limited nuclear arsenal (Pakistan likely has enough weapons grade uranium for only eight to fifteen nuclear weapons[xx]). But Indian nuclear forces are vulnerable to Chinese preemption. China has hundreds of deployed nuclear weapons on missiles and aircraft.

Some believe that India does not maintain assembled nuclear weapons in order to create a buffer against nuclear accidents and unauthorized use[xxi]. If true, while mitigating the problem of accidental use, this would actually weaken deterrence, since it would make retaliation less certain.

The ability to retaliate in the case of a nuclear strike is not a central part of India's strategic literature. Indeed, according to a recent study of Indian views on nuclear deterrence, a key segment of Indian's strategic community, when confronted with this exposed nuclear capability, argue the obsession with retaliation is a western focus and that deterrence rests "not on the certainty of retaliation but on the mere possibility of it" [xxii] That is, if Pakistan or China cannot be absolutely certain of the ability to destroy all Indian nuclear weapons in an initial strike, it would not dare to make such a strike. However, as Brodie points out, at certain points of very high levels of excitement it is possible to believe that an enemy attack imminent, and "the deterrent posture will tend to collapse or be discarded."[xxiii] In this circumstance, the certainty of retaliation would be important.

Conclusion: A Commitment to Deterrence?

In sum, an analysis of India's nuclear strategy in the context of Bernard Brodie's theories reveals: 1) that the object of these weapons is not fully developed; 2) that the Indian focus on the open/recessed deterrent question is misplaced if the objective is deterrence, and 3) that there should be a greater focus on the ability to retaliate if the objective is deterrence. In the end, it is quite curious that some Indians believe that all that is needed for nuclear deterrence is a "possibility" of retaliation, but for deterrence to work properly, a nation must publicly announce its nuclear capabilities.

The US and the Soviet Union have relied on nuclear weapons to deter aggression for nearly half of a century. Although the two countries came dangerously close to direct conflict, nuclear deterrence has not broken down, perhaps by luck as much as a coherent strategy. But we must not forget that deterrence can fail. The pressure to act first in a nuclear age,

according to Brodie, is an "extremely strong and persistent incentive." In pursuit of a deterrent capability, countries must be vigilant in their efforts to ensure that the prerequisites for stability are achieved.

As indicated in the forgoing sections, in analyzing India's nuclear strategy in the context of Bernard Brodie's strategic requirements for stability, one is inevitably drawn to question of whether India is truly committed to a strategy of nuclear deterrence. Those responsible for such decisions seem to focus on political factors related to the nuclear issue at the expense of strategic issues. While some may welcome the prospect that India may not be committed to a strategy of nuclear deterrence, and thus may some day retreat from the nuclear precipice as others have (Ukraine, South Africa), we should also remember that the most dangerous of all worlds would be one in which Indian leaders convince themselves that they are pursuing a strategy of nuclear deterrence but do not demonstrate a commitment to the requirements of that deterrence, and thus create a highly destabilized condition on the sub-continent.

List of References

1. Bajpai, Kanti "Double-Edged Sword: Nuclear Weapons and Regional Security," *Harvard International Review*, vol. 18, no. 3 (Summer 1996): 20-23

2. Brodie, Bernard. Strategy in the Missile Age (Prinction, NJ: Prinction University Press, 1959)

3. Carranza, Mario E. "Rethinking Indo-Pakistani Nuclear Relations: Condemned to Nuclear Confrontation?" *Asian Survey*, vol. 36, no. 6 (June 1996): 561-573

4. Cloughley, Brian, "Pakistan's Defence Strategy and the Nuclear Option," Janes Intelligence Review Yearbook , (1996) pp 115-119

5 Giles, Gregory and James Doyle. "Indian and Pakistani Views on Nuclear Deterrence," *Comparative Strategy*, no. 15 (April-June 1996) : 135-159

6 Hagerty, Devin T "South Asia's Nuclear Balance," *Current History*, vol. 95, no. 600 (April 1996) pp 165-170

7. Albright, David "India and Pakistan's Nuclear Arms Race: Out of the Closet But Not in the Street," *Arms Control Today*, vol. 23 (June 1993) pp 12-16

8 Kamal, Sibal and Ali Naqvi "Nuclear Politics on the Subcontinent: Indian and Pakistani Perspectives," *Arms Control Today*, vol. 23 (June 1993) pp. 9-11

9. Zimmerman, Tim and Brahma Chellaney "Nuclear Ambitions," *U.S News and World Reports*, (February 12, 1996) pp. 42-44

Notes

---

[i] Brodie, p 282
[ii] Giles and Doyle, p. 140
[iii] Brodie, p 397
[iv] Brodie, p. 273
[v] Brodie, p 268
[vi] Carranza, p 567
[vii] Giles and Doyle, p.137
[viii] Cortright and Mattoo, p. 551
[ix] Cortright and Mattoo, p. 559
[x] Bajpai, p 20
[xi] Bajpai, p 22
[xii] Brodie, p 396
[xiii] Giles and Doyle, p 141
[xiv] Brodie, p 293
[xv] Cortright and Mattoo, p 557
[xvi] Brodie, p. 281
[xvii] Albright p, 13
[xviii] Zimmerman, p. -2
[xix] Brodie, p 395
[xx] Albright, p.15
[xxi] Hagerty, p. 167
[xxii] Giles and Doyle p. 138
[xxiii] Brodie p. 280